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south of it. The faintness of this latter portion, and the fear of missing the observations of the former portion, did not allow the Professor to make a more satisfactory estimate of the relative positions.

The larger and brighter portion had not the same shape as when seen on August 25: it was altogether irregular and with two very feeble brushes. The centre was more luminous than the edges, but there was no nucleus. The comet was compared with a star of the 10th mag. which was again compared with ζ *Leonis.*

R.A. ∗ = R.A. ζ Leonis $-7^{m}\ 7^{s}{\cdot}2$, Decl. ∗ = Decl. ζ Leonis − 16″.

The observation of the comet is as follows:—

1852.	Rome M.T. h m s	R.A. s	Decl. ″
Sept. 15	16 13 58·4	∗ −19·2	∗ −53·2

On Sept. 19 the two portions of the comet were compared with Lalande 19134.

1852.	Rome M.T. h m s		R.A. m s	Decl. ′ ″
Sept. 19	16 3 54·36	Preceding Comet	∗ −1 34·9	∗ +10 2·3
	16 12 29·16	Following Comet	∗ +0 17·42	∗ − 4 8·2

The preceding portion being the fainter.

On Sept. 21 the comets were compared with a star of the 7th mag. which is found in Harding's charts, R.A. $9^{h}\,38^{m}$, Decl. +9° 26″, and is underlined.

	Rome Sid. T. h m s		R.A. s	Decl. s
Sept. 20	4 12 31·1	Preceding Comet	∗ −25·03	∗ +44·76 × 15 . cos δ
	4 26 0·2	Following Comet	∗ +87·52	∗ −12·12 × 15 . cos δ

A portion of the comet was observed by Professor Encke.

1852.	Berlin M.T. h m s	R.A. ° ′ ″	Decl. ° ′ ″
Sept. 17	15 45 16·7	141 32 4·9	+10 50 55·8

ENCKE'S COMET.

MARKREE. Large Equatoreal and Square Micrometer. {E. J. Cooper, Esq., and Mr. Graham.

1852.	Green. M.T.	R.A. h m s	Decl. ° ′ ″	Comp^d Stars.	No. of Obs.
Jan.	17·304752	23 11 17·87	+4 31 24·4	*a*	10
	·304752	16·95	25·8	*b*	
	·304752	17·79	27·9	*c*	
	20·296745	23 15 11·82	4 50 14·4	*d*	10
	23·294799	23 19 19·54	5 10 25·6	*e*	10
	·294799	19·39	30·1	*f*	
	·294799	19·20	27·8	*g*	
	·294799	19·28	24·1	*h*	

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Green. M.T. 1852.	R.A. h m s	Decl. ° ′ ″	Comp$^{\text{d}}$ Stars.	No. of Obs.
Jan. 24·294310	23 20 45·30	5 17 39·8	g_1	10
·300704	45·79	41·1	g_1	10
Feb. 13·314821	23 54 7·22	8 0 37·5	*k*	10
21·319601	0 9 26·45	9 0 35·1	*l*	8
24·307928	0 15 7·10	9 15 25·5	*m*	10
·328856	9·31	29·9	*m*	10
25·307405	0 16 57·75	9 18 32·1	*n*	10
·323949	59·24	43·9	*n*	10
Mar. 2·322882	0 26 22·89	+9 6 27·5	*o*	9

Corrected for parallax from Stratford's ephemeris.

Adopted *Mean* Places for 1852·0, of Compared Stars, with reductions to apparent places at the times of observation, and authorities.

	R.A. h m s	s	Decl. ° ′ ″	″	
B.A.C. 8127	23 12 48·19	−1·60	+4 34 26·46	−6·99	*a*
Weisse, 229	11 17·70	1·61	36 8·74	7·00	*b*
— 252	12 38·19	1·60	30 31·37	7·05	*c*
Rümker, A.S.N. XII, 138	14 31·19	1·62	4 41 38·90	7·29	*d*
Weisse, 340	16 50·30	1·63	5 22 25·80	7·40	*e*
— 359	17 50·11	1·62	13 41·04	7·44	*f*
— 413	20 44·02	1·61	15 38·80	7·46	*g*
— 414	20 44·68	1·61	17 5·40	7·46	*h*
— 413	20 44·02	1·60	5 15 38·80	7·37	g_1
B.A.C. 8353	23 54 49·50	1·61	8 7 58·80	8·70	*k*
Weisse, 126	0 7 47·66	1·61	8 55 42·93	9·09	*l*
— 280	16 19·99	1·60	9 6 5·59	9·24	*m*
— 317	19 15·68	1·60	9 19 46·94	9·25	*n*
— 436	0 25 49·61	−1·61	+8 57 11·96	−9·62	*o*

Mean Places for 1852·0, of Compared Stars, from other sources.

	R.A. h m s	Decl. ° ′ ″	
Piazzi, 49	23 12 47·82	+4 34 30·26	*a*
Rümker, A.S.N. XII, 138	12 48·22	34 28·38	*a*
Piazzi, 43	11 16·20	36 12·96	*b*
Lal. 45638	11 16·57	36 14·26	*b*
— 45683	12 37·98	30 22·72	*c*
— 45753	14 31·05	4 41 43·14	*d*
— 45818	16 49·85	5 22 30·36	*e*
— 45848	17 49·86	13 46·30	*f*
— 45952	20 43·67	15 43·88	*g*
Rümker, A.S.N. XII, 138	20 44·14	5 15 40·49	*g*
— — - 139	23 54 49·72	8 7 57·82	*k*
Lal. 563	0 19 15·21	+9 19 48·65	*n*

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Jan. 17. Fancied a slight condensation, not central, but toward the N.E. The comet was excessively faint, and very difficult to observe. The want of a distinct nucleus necessarily makes the place uncertain.

Jan. 20. The comet appears like a very faint, wispy cloud, rather more condensed toward the northern portion. I apprehend there may have been small stars seen through the body during the observation, which was most difficult and uncertain.

Jan. 23. The observation as satisfactory as could be expected from the extreme faintness of the object. I have never had a stronger impression of the very vapoury nature of such bodies.

Jan. 24. The comet was close north, following Weisse 414, so close that it increased the difficulty of the observation. The moon, also, rather troublesome. I cannot depend much on the observation though carefully taken.

Feb. 13. The alteration in the brightness of the comet is unexpectedly great. It is now a fine object. The light at least equal to that of a star 10th magnitude, and beautifully white. The appearance is that of a rich round nebula, with a concentration of light, but no nucleus. The faint nebulosity did not seem to extend so far in the N.E. direction as elsewhere.

Feb. 21. Beautifully shown. Like a fine round nebula, uniformly surrounded by an atmosphere gradually fading off.

Feb. 24. Beautifully shown. Observation made with great care.

Feb. 25. Observation very carefully made.

March 8. Observed an object near to where the comet ought to be; but its light was so bright and concentrated that I had much doubt whether it was not a star. If it was the comet, the compared star is Weisse, 476, which was extremely faint, and the places would be,—

	h m s	s	° ′ ″	″
Weisse, 476	0 27 51·44	−1·61	+7 19 53·22	−10·10
Comet, March 8·336181	0 29 4·35		+7 10 41·1	

I could not see Weisse, 510. The object was very low. Clouded before the observation could be satisfactorily completed.

March 10. Sought for the comet in a tolerably clear sky. Could not see it.

On the Comet of 1689.

By Mr. Vogel, of Mr. Bishop's Observatory, South Villa, Regent's Park.

This great comet was invisible in Europe. It was seen at Pekin from December 10th to 21st, where the tail was from 10° to 12° above the horizon. At Ternate, the length of the tail on December 11th was $35^\circ\frac{1}{2}$; on the 14th, 45°; on the 15th, 47°; and on the 22d, 60°; and was $2\frac{1}{2}^h$ in rising. It was last seen on December 24th, and was then greatly enfeebled by moonlight. It was observed by many Dutch ships in the vicinity of the equator. The observations upon which the orbit depends were taken by Father Richaud at Pondicherri, and by Béze and Comille at Malaca. On December 10th, at 4 o'clock A.M. (or December 9th, 10^h Greenwich mean time, Malaca being $102^\circ\frac{1}{4}$ east of Greenwich), the comet was remarked to be in the intersection of two lines, one drawn from ϖ *Centauri* of Bayer (4858 B.A.C.) and φ′ *Lupi* of La Caille (5054 B.A.C.), the other passing through ο and ξ *Lupi* of Bayer (B.A.C. 4924 and 5046), in the mouth of the *Wolf*, between